

MESSAGE

FROM

THE PRESIDENT OF THE UNITED STATES,

TRANSMITTING

COPIES OF THE REPORTS

IN RELATION

TO THE SURVEYS AND EXAMINATIONS

MADE BY

NAVAL OFFICERS IN CO-OPERATION WITH OFFICERS

OF

THE CORPS OF ENGINEERS.

FEBRUARY 11, 1818.

Printed by order of the Senate of the United States.

WASHINGTON:

PRINTED BY E. DE KRAFFT.

1818.

IN SENATE
OF
THE UNITED STATES,

FEBRUARY 13, 1817.

Resolved, That the President of the United States be requested to cause to be examined and surveyed, the eastern entrance into Long Island Sound, the harbor of Newport and Hampton Roads, and York river, by commissioners; and that the said commissioners report their opinions as to the practicability of defending the said sound, harbor, river, and roads, by fortifications; and if defensible, or any of them, what would be the probable expense thereof.

That he be requested also, to cause to be examined, the coasts and waters of the United States, north of the Delaware, with a view to the selection of a proper site for a naval depot, rendezvous and dock yard: and it is further requested, that the said reports, opinions and estimates, be laid before the Senate in the first week of the next session of Congress.

Attest,

(Signed) CHARLES CUTTS, *Secretary*.

To the Senate of the United States.

In compliance with a resolution of the Senate of the 13th of February, 1817, I now transmit copies of the reports, in relation to the surveys and examinations made by naval officers in co-operation with officers of the corps of engineers.

JAMES MONROE.

Washington, February 6th, 1818.

To the Senate of the United States.

In compliance with a resolution of the Senate of the 24th of February, 1847, I now transmit copies of the reports, in relation to the surveys and examinations made by naval officers in co-operation with officers of the corps of engineers.

JAMES MONROE.

Washington, February 6th, 1848.

Navy Department, February 4th, 1818.

SIR,

I have the honor to transmit to you herewith copies of the reports in relation to the surveys and examinations which have been made by naval officers, in co-operation with officers of the corps of engineers, in pursuance of the resolution of the Senate of the United States, passed on the 13th day of February, 1817.

Enclosed is a list of the charts, &c. which accompany this communication.

I have the honor to be,

With the highest respect,

Sir,

Your most obedient servant,

B. W. CROWNINSHIELD.

The President of the United States.

[100]

Army Department, February 2nd, 1817.

I have the honor to acknowledge the receipt of your letter of the 1st inst. in relation to the papers and examinations which have been made by several officers in the service with a view to the establishment of a permanent corps of engineers, in pursuance of the resolution of the Senate of the United States, passed on the 15th day of February, 1817. Enclosed is a list of the charts, &c. which accompany this communication.

I have the honor to be,

With the highest respect,

Sir,

Your most obedient servant,

B. W. CROWNSHIELD.

Adjutant-General of the United States.

LIST OF CHARTS.

- Rhode Island and Narraganset Bay.
- Newport and Gardner's Bay.
- Boston harbor,
- Eastern entrance of Long Island Sound.
- General map from Haerlem to Sandy Hook, exhibiting the line of defence.
- Falmouth harbor.
- Portsmouth, New Hampshire, harbor.
- Sandy Hook.
- Penobscot River and Bay.
- Boston harbor, including Salem and Marblehead.

Reports on the practicability of defending the eastern entrance of Long Island Sound, and on an examination of the coast and waters north of the Delaware, with a view to the selection of a proper site for a naval depot, rendezvous, and dock yard.

Boston, October 18th, 1817.

SIR,

In pursuance of your orders of the 23d of May, and the detailed instructions from the commissioners of the navy board, dated the 29th May, addressed to myself, captains Evans, and Perry, who were appointed commissioners by the President of the United States, to carry into effect, the resolution of the Senate for the purpose of ascertaining the practicability of defending the eastern entrance of Long Island Sound, and also of examining the coasts and waters north of the Delaware, with a view to the selection of a proper site for a naval depot, rendezvous, and dock yard. The commissioners, accompanied by general Swift and colonel M'Ree, of the corps of engineers, appointed to co-operate with them, did proceed to examine accordingly. On the subjects of the points of defence, there has been an unanimous opinion, and a report will be made thereon, to the Navy and War Departments, to which I beg leave to refer you. It would have been gratifying to me, as I doubt not, it would be to the other members of the commission, if an unanimous opinion had also been formed in selecting the proper site for a naval depot; but as there has been a difference of sentiment, it becomes my duty as a member of that commission, to state my opinion on the subject, founded on the observations and examinations made by the commissioners, and which will appear in detail. In doing so, I shall mention the different harbors included in the instructions of the navy board, in the order of arrangement followed in the examination.

I beg leave, however, before entering into an examination of the subject, to state the requisites, which, in my opinion, are necessary for the establishment of a naval depot, rendezvous, and dock yard.

1. A sufficient depth of water for ingress and egress at all times of tide, and accessibility in all seasons of the year for ships of the largest class.

2. A safe and secure harbor from wind, tide, and ice.

3. Means of protection by a numerous and condense population; susceptibility of defence by its natural situation, and without extensive fortifications.

4. A situation free or difficult of blockade.

5. A population to furnish the requisite number of mechanics at the lowest price, and to the best advantage; where *few* or *many* may at all times be commanded without paying an *indirect tax* to induce them to locate themselves, at or near an establishment for a special purpose, and for a limited time.

6. The vicinity of a large and commercial town, where skilful artizans are established to furnish the various parts of the mechanism of a ship; the greater proportion of which can generally be obtained on better terms for the public interest at private manufactories, than can be supplied within a naval establishment.

7. A favorable situation for obtaining in peace or war, a supply of ship timber, and timber suitable for masts and spars.

8. The advantageous situation of the place selected for the construction of dry docks.

9. And generally a location most favorable for obtaining all supplies connected with a navy or naval establishment, particularly provisions and seamen.

In the execution of the duties prescribed to the commissioners, the place which first received examination was Portland, in the District of Maine.

Portland has a good harbor, and is easy of access. A good site might be found for a dock yard, and a sufficient depth of water at all times of tide; but it would require the erection of very considerable fortifications for its protection. In the event of a war, I should recommend a small naval depot or deposite of naval stores, for the accommodation of such vessels of our navy as might find it convenient to stop here; but I should not think it advisable to make an extensive establishment.

Portsmouth, situated on Piscataway river, has an outer harbor easy of access at all seasons of the year, with a sufficient depth of water at all times of tide. This outer harbor is above the fortifications, and consequently protected by them; but owing to a very rapid tide in the narrows above the outer harbor, a large vessel cannot get to the navy yard or inner harbor, except with a fair wind, and for the same reason, but few vessels can be safely moored there. The island on which the navy yard is located, is commodious for building ships, has bold water, good timber docks for docking timber, and excellent building ways for a ship of the line. Dry docks might also easily be constructed: the island is exposed to a commanding height on Sever's island, where the remains of an old fort are yet seen; the possession of this height is, in my opinion, important to the safety of the navy yard and harbor. I should recommend this navy yard in its present situation, as a good building yard; but on account of the rapidity of the tide, I am decidedly of opinion that it is an unfavorable situation for the establishment of a general rendezvous.

Salem. This has a harbor accessible to ships of war into safe anchorage, as the frigate *Constitution* found in the late war, when pursued by a superior force, and merits the attention of government to some additional works of defence.

Boston. This port possesses in an eminent degree, all the great advantages necessary for a naval establishment.

It has a sufficient depth of water at all times of tide, and is accessible at all seasons of the year.

It has a safe, commodious, and secure harbor, from wind, tide, and ice; and its accessibility is proven by the records of the custom house, a copy of which marked A, is hereto annexed, showing the numerous arrivals and departures in every winter month in the year.

It has great means of protection in the numerous and dense population in its immediate vicinity: the strength of its natural situation, and by its fortifications. The requisite measures for the defence of the town of Boston will always give protection to a naval establishment situated within its waters, and from its naturally strong situation, it may be made defensible against a naval force with small expense. There cannot probably be brought to the defence of any place in the United States, within the same time, so numerous and well organized militia as can be brought to the defence of Boston; for accurate information on this point, I refer to the report of the adjutant general of the state of Massachusetts, a copy of which is annexed, marked B.

It is a situation difficult of blockade.—This fact is shown by the events of the late war, during which the frigates of our navy entered and departed from this port twice as often as from all the other harbors of the United States together. The list herewith accompanying, marked C, shows the number of times our ships of war entered and departed from the port of Boston during the late war.

It has a numerous body of mechanics, and the price of labor is low. Its advantages on this point can be proven by the records of the Navy Department, particularly the low price of mechanical labor.

It is a large and commercial town, abounding in artisans well skilled in all the variety of arts necessary for the building and equipping of large ships.

It is favorably situated for obtaining timber for ship building, and for masts and spars. The country near Boston has the best of white oak timber, which is brought in large quantities, and the Middlesex canal, communicating with the Merrimack river, and through that river to the state of New Hampshire, opens an ample source for the supply of timber for years to come. Continuations of this canal, connecting it with other water carriage, are in contemplation, which promise to supply all the timber that may be required, and of an excellent quality. The advantageous situation of Boston for the supply of timber, to build, repair and mast and spar ships of every size, was fully demonstrated during the late war, in the building of a seventy-four and a twenty-four gun ship, in repairing several frigates and several sloops of war, the materials of which was all drawn from Boston and its vicinity, and through the Middlesex canal, and which it would have been very difficult, if not impracticable, to have procured, by the way of the ocean, in consequence of the superior marine force of the enemy on the coast.

It is favorably situated for the construction of dry docks, though it may be conceded, that they can be built at Portsmouth or Fall river

for a less sum than at Boston. As the difference, however, in this expenditure is merely the difference in the first cost of the docks, it cannot be brought in comparison with the saving, which, from the possession of other and superior advantages, would be realized in a few years in the daily and continued expenditures which attend such establishments. And as docks can be as well constructed at Boston, as at either of the other places, the difference of the expense in the construction, ought not, in my opinion, to be entitled to any importance in the selection of a place suitable for a dock yard, deposite and rendezvous. If it were, however, a circumstance deserving consideration, when put in opposition to other advantages already mentioned, it must lose its weight when compared with the situation of Fall river, or any other place requiring extensive fortifications, and the support of large military establishments, for the sole purpose of protecting a naval depot, as also the necessity of paying the mechanics who may be employed, higher wages, to induce them to locate at a new establishment, out of the vicinity of a populous town, and where also, there is a deficiency of timber and other materials, for ship building, and of provisions and all kind of stores.

The facility of obtaining provisions and seamen.—In these advantages, Boston, in my opinion, stands unrivalled. The provisions put up at this place are of the very first quality, and seamen can generally be obtained more readily than at most other ports. All those articles also, which are generally required for ships of war, and naval purposes, can be procured here in as sufficient quantity and on as good terms as at any other place. The advantages it possesses on this head, it is believed, will be fully corroborated by the numerous contracts which have been made at this place by the Navy Department for the supply of the navy.

Providence River has barely a sufficient depth of water for large ships, and the channel below Gasby Point, which is the best situation on the river for a naval depot, is too narrow for a ship to turn to windward; consequently, long delays might arise in getting to sea from the establishment, which, if located at this place, would require extensive fortifications for its protection, in addition to those which would be necessary for the defence of Newport harbor.

Fall River is favorably situated for the construction of dry docks, and this, in my opinion, is the only advantage it possesses for a naval depot. There is in its vicinity some timber for ship building, but not in large quantities, and from the best information I could procure, would soon be exhausted. In approaching it in ships there is a shoal of three-quarters of a mile in extent, which must be passed, and which has only seventeen feet at low water; the tide rising here only five feet, does not produce a sufficient depth even at high water for ships of the line to pass when prepared for sea. A naval establishment at this place would require for its special protection, extensive fortifications and a large military garrison, and to enable ships

to get to sea, the channels on the east and west side of Conanicut island, must in a state of war be at all times commanded.

To protect the outlet to the ocean from Fall river, which is the harbor of Newport, it is the opinion of the commissioners and the officers of the corps of engineers, co-operating with them, that, in addition to those already erected, the following mentioned fortifications, together with the filling up of the western channel of Conanicut would be required, that is to say—

A fort on Dutch Island.

A fort on Conanicut Island.

A fort and entrenchment extending from Beavertail Cove to the Dumplins.

To occupy the Dumplins.

Fortifications on Brenton's Point and Telegraph Hills.

Fortifications on Tammany Hill and on Hunneman's, overlooking Eaton's Beach.

A fort on Coaster's Harbor Island, and a strong fortification on Rose Island.

A fort on Balt's Hill; and

Tiverton Heights to be occupied.

For a more minute detail of the requisite fortifications, a reference is made to the report of the Commissioners appointed to examine the practicability of defending Newport Harbor. From this statement, it is obvious, that fortifications of such extent would require a very large military force to defend them; and which, in a state of war, must be constantly kept up, as it would be impracticable to man, on an emergency, such extensive works from the surrounding population.

The vicinity of Fall River, to the waters of Seaconnet Passage and of Buzzards, render it accessible to an enemy, who may approach by water within seven to ten miles, and who could march through the country, of not a very dense population, to Fall River. It may, therefore, be asserted, that it will not only be necessary to completely defend the island of Rhode Island, but also to erect fortifications, and maintain a force at Fall River, sufficient to defend it against any attack, that might be made by land.

The magnitude of the fortifications and military force necessary for this purpose, is in itself an objection sufficient, in my opinion, to render the location of a naval depot at this place, highly inexpedient.

Newport has already been mentioned in relation to the fortifications necessary to protect it; it has a good harbor, is accessible at all times of tide, and in all seasons of the year. It is worthy the attention of government, as a port favorable for the ships of our navy occasionally to enter. From my examination of the waters of Rhode Island, I am decidedly of opinion, that the most favorable situation for a naval depot *within those waters*, is between Bristol ferry and Mount Hope Bay, marked M, on the chart made from captain Evans' survey in 1815. But I do not think that situation equal to several others in the United States.

New London.—This has an excellent harbor, accessible at all seasons of the year, at all times of tide, and unobstructed by ice. It is, in many respects, well calculated for a naval depot, having a very good situation at Comstock Point, on the river Thames. But the ease with which it may be blockaded, as was proven in the late war, should be an insuperable objection to its being selected for such an establishment as is contemplated by the resolution of the Senate of the United States.

New York.—This port, possessing many of the great advantages necessary for a large naval establishment, has a bar at the southern entrance of its harbor, on which there is but twenty-two feet six inches, at low water, which will not admit ships of war of the large class, to pass at that time of tide. In winter the harbor is obstructed with drifting ice. It possesses the advantages of great population and excellent artisans, which gives security in a state of war, and great facility at all times in building and equipping a navy. It has two outlets to the ocean, consequently would require a double blockading force to keep vessels within its port. Frog's Point, fourteen miles above the city, is an excellent harbor, but requires fortifications. This point and the opposite point on Long Island, are most favorably situated for the defence of the outer harbor, to the port of New York through the sound. It is the key of the sound, and, in my opinion, ought to be immediately fortified. New York is so important a place for a naval establishment, that, although I do not consider it has all the advantages Boston possesses, particularly as it is not accessible at all times of tide, and as vessels lying in the harbor in winter, are exposed to danger from the floating ice, I am firmly of opinion, under every view of the subject, that next to Boston it is the most suitable place for such an establishment, and one worthy the attention of government as a naval depot.

Having thus detailed the advantages of the several places had under examination by the commissioners appointed for that purpose, and considering that a place suitable for the location of an establishment, such as is contemplated by the resolution of the Senate, should possess, if possible, the advantages recited in this report, I feel bound to express my perfect conviction, that Boston is the most eligible situation, in every respect, for the establishment of a naval depot, rendezvous, and dock yard. I will add one other consideration, which, though it may not appear to some as important, is, in my opinion, deserving of attention. The establishment is of a nature that should be permanent; and looking forward to the time when the navy of this country may be expected, not only to prevent a blockade of our coast, but even to extend its operations on the coast of America to the northeast of the United States, the situation of Boston as a naval rendezvous, in such an event, would have a most important advantage over Fall River in its accessibility, by avoiding the shoal of Nantucket, the most dangerous shoal on our coast.

Although, sir, it may appear irrelevant in this report to offer a further opinion, I will nevertheless venture to give it, trusting in the purity of my motives for so doing, and in the liberality of the government to receive opinions when respectfully submitted.

So extensive a coast as that of the United States requires at least three considerable naval arsenals.

Geographical situation appears to me to mark decidedly Boston, New York and Norfolk, as the proper sites: Boston for the eastern section of the country; New York for the middle, and Norfolk for the southern. All these three possess the great advantages of a numerous population for the security of the establishments, susceptibility of defence, and the sufficient and cheap supply of materials and mechanics for the building, repairing and equipping of ships.

I have the honor to be,

Sir,

With very great respect,

Your most obedient servant,

(Signed)

WM. BAINBRIDGE.

*To the hon. Benjamin Crowninshield,
Secretary of the Navy, Washington.*

The undersigned, appointed by the President of the United States, in conjunction with general Swift of the corps of engineers, to examine Castine, in the Penobscot bay, and the waters adjoining, with a view to ascertain its importance as a military position, and the practicability of fortifying it, having attended that duty, has the honor to submit the following observations and reflections:

The Penobscot is a spacious bay, containing many excellent harbors, the borders of which, and the islands within it, are in a state of improved cultivation and possess considerable population. Castine is situated on a promontary, nearly at the head of eastern side of the bay. It has an excellent harbor for any number of ships of the largest size, has bold water, and is accessible at all seasons of the year. The promontory is connected with the main by a narrow isthmus.

Proceeding up the river from Castine to Buckstown, the river is divided by Orphan Island, the western channel of which is alone used for the passage of large vessels. This part of the river nearly opposite Buckstown, is what is termed the narrows, and has been thought by some as a suitable place for extensive fortifications.

Castine has great strength from its natural situation, and if proper batteries were erected might almost bid defiance to an attack. From the narrowness of the isthmus which connects it with the main, it could be insulated without much labor or expense, and this mode of defence, in addition to strong batteries, would, if in the posses-

sion of an enemy who had the superiority at sea, render it impregnable. In its present situation it might easily be taken, and when taken, could be held with a comparatively small force. From an attentive examination of the bay and river Penobscot, as high up as Buckstown, it is believed that an enemy cannot possess himself of any position along the waters of the Penobscot, Castine and the islands within the bay excepted, without leaving in his rear places advantageous either for driving him from the points he might possess, or for cutting off his retreat, the surface of the country along the river presenting innumerable military positions. The importance, therefore, of fortifications at the Narrows, near Buckstown, is of minor consequence, when compared with the defence and possession of Castine, since an enemy would hardly dare to proceed up the river until he secured the command at the entrance.

The very great importance which has been attached by the British to the possession of this place, has been proved by the events of the late and of the revolutionary war, and the consequences which would evidently result to this portion of the country from an early and continued occupation of Castine by an enemy, are so obvious, as to supercede the necessity of dilating upon the subject.

Its bold water and excellent harbor, affording shelter for the largest fleets; its accessibility at all seasons of the year; its favorable situation for the entry of prizes; and above all, its geographical situation, communicating in a few days sail with Halifax, and, by a short route up the Penobscot, with Quebec, giving a command of all the intermediate country, from the Penobscot to the St. Croix, make its possession an object of the highest consequence in the event of another war with Great Britain.

The undersigned is fully of opinion, that Castine may be fortified without great expense, so as to resist any force which would probably be brought against it, and that its importance is great, and such as to merit the high consideration of the government.

(Signed)

W. BAINBRIDGE, *U. S. Navy.*

Boston, 13th September, 1817.

B.

Commonwealth of Massachusetts,

Adjutant General's Office,

Boston, November 1st, 1817.

DEAR SIR,

In answer to your letter of 22d ult. I would hereby certify, that thirteen thousand one hundred and eighty-two militia, are enrolled in the infantry, seven hundred and sixty-four artillery, and six hundred and sixty-five cavalry, within twenty miles of Boston, amounting to fourteen thousand six hundred and eleven men, and may be assembled in this place in time of alarm, within twenty-four hours; to this number may be added, the exempt, and others which might be brought into service on a special occasion, three thousand five hundred more, making an effective force of eighteen thousand one hundred and eleven men.

Six thousand may be assembled in ten hours in Boston. Within thirty miles a force of the same description, of twenty-four thousand five hundred, in forty-eight hours. Within forty miles in ninety-six hours, thirty thousand. In the late war some companies arrived in Boston in five days, from ninety-five miles distance.

I am very respectfully,

Sir,

Your obedient servant,

(Signed)

E. MATTOON,

Adjutant General.

Commodore Bainbridge.

C.

TABLE showing the number of times of arrival and departure from the port of Boston, of the vessels of the navy during the late war with Great Britain.

Vessels Names.			Number of times of departure and arrival.
Frigate	Constitution	- -	7
	President	- -	4
	United States	- -	2
	Chesapeake	- -	3
	Congress	- -	4
Sloop	Hornet	- -	2
	Frolic	- -	1
	John Adams	- -	1
Brig	Argus	- -	2
	Nautilus	- -	4
	Rattlesnake	- -	2
	Siren	- -	2

Report of General J. G. Swift, Captain Samuel Evans, and Captain O. H. Perry, on their examination of the Ports and Harbors east of the Delaware Bay, as far as Portland, with a view to the selection of a proper site for a Naval Depot, Rendezvous, and Dock Yard.

United States' Navy Yard, New York,

30th October, 1817.

SIR,

In obedience to the orders received from the Navy and War Departments, the undersigned, commissioners, officers of the United States' navy, and corps of engineers, have examined the ports and harbors east of the Delaware Bay as far as Portland. From Portland to Penobscot Bay was examined only by two of them.

The undersigned respectfully submit to the Departments of Navy and War, their opinions of the several harbors and ports which they have examined, in relation to their importance as rendezvous for ships of war and for depots; and also of their susceptibility for defence.

In examining the chart of the American coast, we find various positions that might be very advantageously occupied for naval purposes in time of war. There are a number of harbors which afford convenient rendezvous for ships of war, and which contain sites for depots and for national defence. They also combine facilities for the organization of naval expeditions. Some of these harbors should be occupied by the United States, not only for the purposes desired, but also to prevent any enemy of great naval power from taking possession of them for similar purposes in time of war. Possessed of these positions, such an enemy would be enabled by their advantages, to increase the evils of blockade, and, perhaps to prolong the contest. The positions presenting the most importance in respect of good harbors, depots and defensible sites, are to be found in the waters of Chesapeake and Narraganset Bays.

Of the harbors which the commissioners have examined, they have the honor to state as follows:—

Penobscot Bay, in the District of Maine.—This bay is one of the most spacious in the United States. It is of easy access, and contains two positions which can be perfectly fortified, to wit: Castine and Fort Point. These positions afford in their immediate vicinity, good anchorage. The advantages which this bay possesses in the general view abovementioned, are much enhanced by its situation, in relation to Canada and Nova Scotia. The route into the former country is direct upon the waters which disembogue at this bay, and which ap-

proach the Chaudier, emptying into the St. Lawrence. Although the United States possess harbors nearer to Nova Scotia than Penobscot Bay, yet from a combination of advantages, it commands a preference, because it seems better to unite in one position, the convenience of a good harbor, the benefits of a naval depot, and the superiority of ground for fortification, than to possess them separately. It must be acknowledged, that while an enemy possess the command on the ocean, Penobscot Bay could be blockaded, which, in time of war, would reduce the United States to the necessity of transporting by land, munitions, &c. not in depot at Castine or Fort Point. The sketch of the bay will present to view the points mentioned. These observations on Penobscot Bay are made from the examination of it by commodore Bainbridge and general Swift.

Portland, District of Maine.—At this place all the commissioners met, and proceeded to examine it with the views submitted in their instructions. Relative to a navy yard or depot, the harbor offers one position at Portland Head, near the Sack Cove, sufficiently capacious for such a naval establishment, as will be seen by consulting the sketch of the harbor. This harbor and site for a depot can be defended by strengthening the present works, by constructing inclosed works in the rear of forts Scammel and Preble, by occupying Rannie's island with an inclosed work, and the height in Yarmouth also, as indicated upon the sketch.

The harbor of Portland is not large, though in every other particular it is a good one, easily entered, and is a convenient harbor for a squadron to "make" occasionally.

Portsmouth Harbor.—This harbor is of easy access, and has an abundance of water, though from its confined and deep channel, the tide runs with too great a velocity to allow a fleet to manoeuvre or to anchor in with safety. It has already a building establishment, and, in the opinion of the commissioners, it would be advisable to retain this yard, on account of the excellent ship timber to be found in its vicinity. The defence of this harbor is not difficult, the strengthening of the present works (see the sketch) and an inclosed work upon Sullivan's or Trefethern's island, would secure the harbor from any naval inroad.

Salem—Cape Ann—and Marblehead Harbors, are, neither of them, sufficiently capacious, and otherwise well situated for any other naval purposes than occasional harbors.

Boston.—This harbor is well known to be amongst the most important in a commercial point of view in the United States. It is capacious, and can be entered by any vessel of war. Reports have been in circulation that a bar exists at the mouth of this harbor. The commissioners have so far ascertained that this report is unfounded, as that there are upon this bar four and one quarter fathoms water, at low tide, as is exhibited upon the accompanying chart. The commissioners having examined this important point, with a view of determining its comparative value, are of opinion that Boston har-

A.

A STATEMENT of the number of vessels which were entered and cleared from and for foreign ports at the Custom House in Boston, in the months of January, February, and December, for three successive years, viz. 1814, 1815, and 1816, designating the numbers for the first, second, and third parts of each month; exhibiting also, the number of coasters which did actually enter and clear in the months and years aforesaid, and the estimated number of coasters which arrived and departed without entering or clearing at the Custom House, during the same periods.

1814.	Entered.	Cleared.	1815.	Entered.	Cleared.	1816.	Entered.	Cleared.
From 1st to 10th Jan.	3	1	From 1st to 10th Jan.	0	1	From 1st to 10th Jan.	13	12
10th to 20th	1	1	10th to 20th	0	4	10th to 20th	5	13
20th to 31st	2	4	20th to 31st	0	1	20th to 31st	16	11
	6	6		0	6		34	36
From 1st to 10th Feb.	2	2	From 1st to 10th Feb.	2	0	From 1st to 10th Feb.	10	17
10th to 20th	5	1	10th to 20th	0	0	10th to 20th	3	9
20th to 28th	2	2	20th to 28th	0	0	20th to 29th	10	8
	9	5		2	0		23	34
From 1st to 10th Dec.	0	1	From 1st to 10th Dec.	13	15	From 1st to 10th Dec.	17	17
10th to 20th	0	3	10th to 20th	27	13	10th to 20th	20	27
20th to 31st	0	2	20th to 31st	15	18	20th to 31st	7	11
	0	6		55	46		44	55

COASTERS.

1814.	Entered.	Cleared.	1815.	Entered.	Cleared.	1816.	Entered.	Cleared.
From 1st to 10th Jan.	3	48	From 1st to 10th Jan.	7	4	From 1st to 10th Jan.	12	54
10th to 20th	13	27	10th to 20th	10	8	10th to 20th	39	25
20th to 31st	24	18	20th to 31st	7	3	20th to 31st	25	44
	40	93		24	15		76	123
From 1st to 10th Feb.	10	23	From 1st to 10th Feb.	1	1	From 1st to 10th Feb.	21	30
10th to 20th	27	13	10th to 20th	4	3	10th to 20th	18	22
20th to 28th	47	60	20th to 28th	6	2	20th to 28th	31	33
	84	96		11	6		70	85
From 1st to 10th Dec.	3	7	From 1st to 10th Dec.	41	70	From 1st to 10th Dec.	60	55
10th to 20th	6	7	10th to 20th	46	69	10th to 20th	29	60
20th to 31st	12	10	20th to 31st	34	83	20th to 31st	40	56
	21	24		121	222		129	171

RECAPITULATION.

Total number of coasters which entered and cleared in the winter of 1814	358
Estimated number of coasters which did not enter or clear	358
Total number of vessels entered and cleared from foreign ports in the winter of 1814	32
Total number of coasters which entered and cleared in the winter of 1815	241
Estimated number of coasters which did not enter or clear	241
Total number of vessels entered and cleared from foreign ports in the winter of 1815	109
Total number of coasters which entered and cleared in the winter of 1816	654
Estimated number of coasters which did not enter or clear	654
Total number of vessels entered and cleared from foreign ports in the winter of 1816	226
Total	2873
Whole number of vessels arrived and departed in the winter of 1814.	748
Whole number of vessels arrived and departed in the winter of 1815	591
Whole number of vessels arrived and cleared in the winter of 1816	1534
	2,873

bor possesses many advantages, resulting from its natural means of defence, and its ample space of anchorage in the lower harbor and Nantasket Roads. Other advantages are to be found in the proximity of the present establishment, to materials for naval construction, in the dense population of the town and its vicinity. But from the uncertainty of entrance into this harbor, and that a fair wind is requisite to enter President Roads, from those of Nantasket; and that the harbor is occasionally obstructed by ice; from the difficulty of getting to sea in easterly weather; from its susceptibility of blockade, situate as it is at the bottom of a bay; and from the dangerous navigation of Boston Bay in the winter season, the commissioners are of opinion, (with one exception,) that it is advisable to retain the present establishment, connecting with it a dry dock, for occasional buildings and repair, but that it is not advisable to establish a great national depot and rendezvous at this place. The harbor can be secured from maritime attack, by occupying Georges and Long Island, and by strengthening the defences of the works on Castle, Governor's, and Noddle's islands. (See the map.)

Rhode Island Harbor, and Narraganset Bay, Watch Hill, Fisher's Island Sound, and New London Harbor.—The examination of these waters has convinced the commissioners, that they are of great national value, not only in a naval point of view, but also in that of defence. The connexion of them, which is here made, is intended to exhibit the opinion of the commissioners, that in naval, as well as in commercial operations, the power of maintaining this connexion should be preserved as far as may be practicable, and indeed extended, were it within reasonable means, by the line across the sound from the western extreme of Fisher's island, by the Race and Gulls to Gardner's bay. But the distance exhibited on the map from Fisher's island to the Gull, the rapidity of the tides and great depth of water, the distance from the Gull to Gardner's Bay, and the distance of good anchorage in Gardner's bay from that island, are such, as to preclude, in the unanimous opinion of the commissioners, the hope of extending a line of defence by permanent fortifications from Fisher's island to the bay just mentioned.

The use of steam batteries in these waters, would, in the opinion of the commissioners, aided by a supporting fortification on Gardner's island, form an important and imposing obstacle to the occupancy of these waters by an enemy who may possess a greater naval force than the United States. For all the objects of naval rendezvous and national defence, the commissioners agree unanimously in the opinion herein expressed, in relation to the waters of Narraganset bay, the Sound, and New York. The commissioners, (except one,) are of opinion that Narraganset bay presents the best site for a naval depot in the Union, north of the Chesapeake bay, for the following reasons: the population within two days march of this bay, is equal, if not superior to any section of the Union of equal area, consequently the means of defence which a dense population affords, is to be found in the

vicinity of it in an equal degree with any other point on the coast. Because, in a geographical view, this bay and that of the Chesapeake from the two great points on the sea coast conveniently situated as to distance from the Atlantic extremes of the Union, affording mutual advantage to effect a concentration of any naval force, and the line of their communication would afford to such a force, the means of protecting important intermediate positions, to wit: the Delaware, New York, and Long Island Sound; because, particularly as it relates to Rhode Island harbor, it is very accessible from sea at all seasons of the year: it affords capacious harbors, can be entered from the ocean, and the ocean can be reached from it in a few hours sail, because it can be entered when the wind is northwest; and because it is not susceptible of a continued blockade; nor is it obstructed by ice. An examination of this bay has satisfied the commissioners (with one exception) that the best site for a great naval depot east of the Chesapeake bay, is to be found in this bay and the various positions upon the waters of it. The sites are Gaspe Point, Mount Hope bay, near Bristol, the Basin and Fall river. The basin, at the northern extremity of Rhode Island, formed by the north part of the eastern passage and the stone bridge at Howland's ferry and Fall river at the margin of Taunton river, present the best sites. Both have great advantages, the first from its accessibility and from the circumstance that the defence of Rhode Island will include that of this position. The latter named place has natural means for forming dry docks and to propel machinery by its falls. Inasmuch as the water of Watupor South Pond, can be conveyed by conducts to the basin, and as the site at Fall River would involve an extensive line of defence, the commissioners prefer the basin. The commissioners have received information that an abundance of oak timber, iron ore, and of workmen, can be procured within a range of thirty miles from this basin. The line of defence for Rhode Island harbor, including that of the depot, is indicated upon the map, commencing at Dutch Island, in the western passage, between Conanicut island and the main land, and extending by the Dumplings, Brenton's Point, Tammany Hill, Butt's Hill, to Tiverton Heights.

In relation to the connexion before mentioned of the harbor of Rhode Island, and those near Watch Hill, Fisher's Island Sound, and New London, the line of defence upon these positions is indicated on the map. Ships of war and merchantmen, in coming from sea, could, in a northeast wind, make the harbor by Watch Hill and Fisher's Island, or could reach New London harbor, without being cut off by an enemy occupying Gardner's Bay. From these positions, a westerly or southerly wind would enable fleets to run through Fisher's Island Sound, by Watch Hill, to Rhode Island harbor, without incurring the danger of being intercepted by any vessels laying in Gardner's Bay. The harbor of New London is of very easy access, and is capacious and safe; and in relation to the line through Fisher's Island Sound, is deemed a very valuable harbor. An abundant

depth of water extends from New London to Comstock Point. This point has many advantages for a naval depot. The commissioners, however, with the exception before mentioned, prefer Narraganset Bay, for reasons which have been assigned.

New York Harbor.—This harbor presents itself in a two fold view, inasmuch as it has a double communication with the ocean, and is connected with Canada by means of the Hudson and Lake Champlain. These views deservedly attach a great importance to New York Harbor for naval and military purposes; any ship of war can enter this harbor from the ocean by Sandy Hook, or through the Sound; and although the commissioners do not deem it advisable to establish a large naval depot and rendezvous at this place, yet they advise the occupancy of the present yard for occasional depot, building and repairs and for a dry dock. This depot should be established to ensure naval supplies, and to aid such military operations, as a state of war may render necessary. This harbor may, from the sound side, be considered as in some degree connected with New London, and more particularly so as Frog's Point, at the entrance of the Sound, offers a site for a fortification, which would amply secure an outer harbor to that of New York. There are an abundance of water, and good anchorage near this Point. New York Harbor is occasionally obstructed with ice.

The commissioners were, from unavoidable circumstances, prevented meeting and commencing their examinations, until the 21st of July. The time in which it was necessary to make up their report, has not been sufficient to enable them to enter into details of survey or of calculation, as to the expense of constructing forts at different places. These calculations require much time, as they refer to the fortification of as many sites, as shall be selected for defence, between Penobscot Bay and New York. It may, with propriety, be said, that the expenses of constructing fortifications, cannot be estimated from the data furnished by the costs of the works, that have been heretofore erected. These works have been, in almost every instance, constructed upon the scale of redoubts, and not upon that deserving the name of fortifications.

The commissioners have, in their survey and examination, only determined where it would be best to locate a great naval depot, and where sites for defence should be selected. They are convinced of the impracticability of defending the entrance into Long Island Sound from the Western point of Fisher's Island, to the Gulls and Gardener's Bay. They are convinced that the entrance through Fisher's Island Sound, may be defended. They have indicated the positions which should be occupied for defence, on the map. They have decided, that Frog's Point can be so secured, as to form a good outer harbor to New York, and an inner harbor from the side of the sound.

If the positions recommended, should be deemed of sufficient importance to be occupied, engineers should be sent to make the most minute surveys, so as to determine the position, and form of

the works, which, when constructed, are to last many years, and which, in their construction, must involve a great expenditure. As to the expense of constructing docks, &c. the remark, in relation to details of fortifications, will equally apply to these constructions. The enclosed memorandum, relative to timber, workmen, and iron ore, is furnished for reference. Commodore Bainbridge will communicate his own opinion upon the subject of a great depot, as he does not agree with the other commissioners in recommending the location of such a depot in Narraganset Bay.

We have the honor to be,

With great respect, Sir,

Your most obedient servants,

(Signed)

J. G. SWIFT, B. G.

SAMUEL EVANS,

O. H. PERRY.

The Hon. B. W. CROWNINSHIELD,

Secretary of the Navy.

Report of the commissioners appointed to survey the lower part of Chesapeake bay.

*Old Point Comfort, Hampton Roads,
24th January, 1818.*

The undersigned, commissioners, appointed to examine the lower part of Chesapeake Bay, Hampton Roads, and York river, for the purpose of determining whether the entrance into the former could be prevented by fortifications extending from the Horse Shoe to the Middle Ground; whether the latter could be so fortified as to prevent the entrance of a hostile force, have the honor to state, that from various causes, they were not enabled to assemble, until the latter part of the month of December, 1817: that they commenced to discharge the duty assigned them on the first of January, 1818, at Old Point Comfort. From the advanced stage of the season, and the consequent uncertainty of having such weather as would enable the commissioners to effect a thorough examination of the waters of Chesapeake Bay, and the entrance of York river, they recommend that the execution of their duty in relation to those places, may be postponed until the first of May next.

To the date of this report, from the first of January, the commissioners have been employed in surveying and examining Old Point Comfort, the Rip Rap Shoal, and the entrance into Hampton Roads. The result of this examination, is a conviction on the part of the commissioners, that the passage into those roads can be so fortified as to prevent the entrance of any hostile fleet. The extent and

efficiency of such fortifications, will depend upon the decision of the government as to the length of time which the works should be enabled to withstand the attack of a combined naval and land force, of a given magnitude.

If the amount of resistance to be made at this pass be merely an obstruction of the entrance into Hampton Roads, without any reference to a land attack, the commissioners believe that competent water defences may be constructed to such an effect. As however the object of forcing an entrance into Hampton Roads, might be deemed by an enemy worth the expense of a regular siege, the commissioners deem it their duty to recommend a system of defence equal to such an exigency. Such a system should embrace the occupation of the Rip Rap Shoal, with a castellated fort; the channel between that shoal and Old Point Comfort, with a boom raft; and Old Point, itself, with an inclosed work, the whole to be so located as to afford a mutual protection, and to embrace, in the total, the power to resist any force which may be brought against the pass into Hampton Roads. The commissioners have not as yet been able to collect sufficient data to authorize them to offer you a complete plan. The magnitude of the work may affect the prices of materials and workmanship, and as the nature of the substratum at the sites has not yet been sufficiently ascertained, no determinate amount of expense can be estimated, upon which the commissioners can with safety rely.

For a general view of the subject the commissioners present the inclosed charts, which will exhibit the positions that should be occupied, and may enable you to form some opinion of the approximate expense which the adoption of the system would involve; in aid of which they also inclose an estimate for a work on the Rip Rap Shoal, which is predicated on the supposition that the substratum of that site is solid, and upon the usual prices of materials and workmanship in this section of the union.

It is the wish of the commissioners to lay before you their reasons in detail upon the proposed system, to which effect the commissioners can with usefulness employ their time till May next, in acquiring further information, and in digesting as perfect a plan as the nature of the case will admit. The commissioners deem it their duty to state to you that majors Robedean and Kearny, and lieutenant Blaney have attended the commissioners, and have, by their assiduous attention, been materially beneficial in surveying and drawing.

Respectfully submitted.

(Signed)

J. G. SMITH, Br. Gen.
L. WARRINGTON
W. K. ARMISTEAD.
W. M'REA.
J. D. ELLIOTT.

*To the Hon. B. W. Crowninshield,
Secretary of the Navy.*

The first part of the paper is devoted to a general discussion of the problem of the origin of life. It is shown that the problem is one of the most important and most difficult in the history of science. The author then proceeds to a detailed examination of the various theories which have been proposed to explain the origin of life. He discusses the theory of spontaneous generation, the theory of biogenesis, and the theory of abiogenesis. He also discusses the theory of the origin of life from non-living matter, and the theory of the origin of life from living matter. The author concludes that the theory of abiogenesis is the most plausible of the theories which have been proposed. He also discusses the possibility of the origin of life on other planets, and the possibility of the origin of life from extraterrestrial matter. The second part of the paper is devoted to a detailed examination of the various theories which have been proposed to explain the origin of life. He discusses the theory of spontaneous generation, the theory of biogenesis, and the theory of abiogenesis. He also discusses the theory of the origin of life from non-living matter, and the theory of the origin of life from living matter. The author concludes that the theory of abiogenesis is the most plausible of the theories which have been proposed. He also discusses the possibility of the origin of life on other planets, and the possibility of the origin of life from extraterrestrial matter.

